Language Attitude and Language Variation: Empirical Study on Mandarin[*]

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This paper empirically studies the effects of attitudes towards Mandarin on Mandarin variation, and finds that both Mandarin emotional and value attitudes can effectively suppress Mandarin variation. Further research has found that the language attitudes of local residents have a stronger overall impact on Mandarin variation; The language attitude in small cities has a stronger impact on the variation of Mandarin.

Keywords: language attitude, emotional attitude, value attitude, language variation, Mandarin

Introduction

Linguistic diversity is the norm in people's lives and social interactions. According to the theory of linguistic contact (Thomason & Kaufman, 1988), long-term contact between languages can leave traces on each other and produce new characteristics, resulting in linguistic variation or change (Hartmann & Stork, 1972). There are many factors influencing language variation, such as external factors including geography, history, culture, and social class (Germanos & Miller, 2015), and it may also be related to internal factors such as personal characteristics including the age and gender of the speaker and their attitude towards language (Fishman, 1999). Language attitudes are people's basic perceptions and value evaluations of different languages and their users (Adler & Plewnia, 2018), which reflect people's mental activities, including emotion, cognition, and usage tendencies (behaviour) (Edwards, 2018; Schröder, 2019).

When speakers are confronted with only one language, their attitude towards that language is generally simpler, or at least what they think is useful. In a bilingual or multilingual environment, especially when faced with two or more strong languages, speakers' attitudes towards different languages are relatively complex. The higher the degree of identification, the more the speaker will generally invest in learning to improve their language ability, and the less likely or variable the language will be. So, does the speaker's attitude towards a language affect its own variation? Are there any differences between different groups? This paper takes the

Cantonese dialect area of the Pearl River Delta in China as the research scope and answers these questions through investigation and empirical research.

Variables and Data

Variable Selection and Measurement

1. Explained variable

Mandarin variation (*MV*) is selected as the explained variable, which refers to the degree to which speakers are influenced by the pronunciation, vocabulary, and grammar of Cantonese when using Mandarin.

2. Explanatory variables

Mandarin attitude is selected as the explanatory variable, which refers to the degree of recognition of Mandarin by the speaker and includes both emotional and value levels. Specifically, it includes: Mandarin Emotional Attitude (*MEA*) and Mandarin Value Attitude (*MVA*).

3. Other variables

(1) Control variables. This paper selects age (*Age)*, gender (*Gender)*, education (*Education)*, registered residence registration attribute (*Domicile)* and marriage of the respondents (*Marry)*. (2) Moderator variables. ① Immigration attributes. Generally speaking, the impact of Mandarin variation among immigrants is relatively weak. ② City level. The higher the city level, the more important the communicative function of Mandarin, and the degree of Mandarin variation may be relatively lower.

Data Source

The scope of this study is prefecture level cities in the Pearl River Delta region of China. We use a combination of questionnaire surveys and interviews to obtain data, and the implementation period is from July to August 2024. The number of effective interview recordings and questionnaires is 6687. The interviewee is required to meet two conditions: (1) Aged between 7 and 60 years old; (2) Can use Mandarin and Cantonese for daily communication. All other data are obtained through a questionnaire survey.

Empirical Results

Basic Regression Results

In order to understand the impact of language attitudes on language variation, this paper establishes a benchmark model as shown in equation (1):

$$MV_i = \alpha + \beta_1 MEA_i + \beta_2 MVA_i + \sum_i \lambda_i C_i + \mu_i \qquad (1)$$

Among them, α is a constant term and β is the coefficient of the explanatory variable. The series control variable is represented by C_i. λ_i is its coefficient, μ_i is the random disturbance term, and the subscript *i* refers to the *i*-th respondent.

After testing, the model does not have multicollinearity or heteroscedasticity issues. The regression results of the benchmark model are summarized in Table 1.

Table 1
Regression Results of Benchmark Model

	MV
MEA	$-1.505^{**}(-2.08)$
MVA	$-3.432^{***}(-6.87)$
Age	$0.922^{***}(5.15)$
Gender	$-8.959^{***}(-2.86)$
Education	$-2.265^{***}(-3.87)$
Domicile	$-12.473^{***}(-2.98)$
Marry	$0.863(0.65)$
R^2	0.736
F value	1861.188^{***}
Observations	6687

Note: *, * *, * * * respectively indicate statistical significance at the 10%, 5%, and 1% levels, with t-values in parentheses. The meaning in the following table is the same.

MEA has a significant negative impact on *MV*, indicating that the higher the level of emotional identification in Mandarin, the lower the degree of Mandarin variation. This is because the higher the emotional identification of the respondents with Mandarin, the stronger their acceptance of Mandarin as the national lingua franca in their hearts, and they tend to spend more time and energy learning Mandarin, constantly correcting the influence of dialects on Mandarin usage in pronunciation, vocabulary, and grammar. As a result, the standard level of Mandarin has been continuously improved, that is, the degree of Mandarin variation has been reduced. *MVA* has a significant negative impact on *MV*, indicating that the higher the degree of Mandarin value recognition, the lower the degree of Mandarin variation. This is because respondents believe that the stronger the practicality of Mandarin, the more likely they are to spend more time and energy learning Mandarin, and are willing to participate in more social activities and increase communication opportunities, continuously improving their Mandarin proficiency through practice, resulting in a lower degree of Mandarin variation.

Heterogeneity Analysis

Immigration Heterogeneity

We divided the respondents into two groups, immigrants and local residents, to investigate whether there is a significant difference in the impact of language attitudes on language variation between these two groups. The regression results are shown in Table 2.

Table 2
Regression Results of Immigrant Grouping

	MV	
	Immigrants	Local residents
MEA	$-1.162^{**}(-2.28)$	$-2.744^{***}(-4.85)$
MVA	$-3.396^{**}(-2.07)$	$-5.612^{***}(-6.33)$
CEA	$2.639(0.78)$	$5.733^{***}(3.89)$
CVA	$2.978^{*}(1.91)$	$5.141^{**}(2.23)$
R^2	0.578	0.727
F value	102.040^{***}	1576.498^{***}
Observations	756	5931

For local residents, the contribution of Mandarin attitude to Mandarin variation is stronger than that of immigrants. Compared to immigrants, local respondents have long been accustomed to using dialects, and overall, Mandarin variation is more common and deeper. With an increase in Mandarin identification and investment in Mandarin learning, the marginal effect of weakening Mandarin variation is stronger. On the contrary, the overall Mandarin proficiency of immigrants is better, and their influence on Mandarin is weaker. The attitude towards Mandarin has limited space to reduce the degree of Mandarin variation.

Heterogeneity of Urban Levels

To further understand the impact and differences of language attitudes on language variation among respondents in cities of different levels, this section divides the entire sample into three groups according to city level attributes, and compiles the regression results as shown in Table 3.

Table 3
Regression Results of City Level Grouping

	MV		
	First tier cities	Second tier cities	Third tier cities
MEA	$-0.836^{*}(-1.75)$	$-1.885^{***}(-3.37)$	$-2.339^{***}(-7.19)$
MVA	$-2.225^{*}(-2.03)$	$-3.701^{**}(-2.18)$	$-4.806^{***}(-9.54)$
CEA	$2.695^{*}(1.88)$	$5.722^{**}(2.13)$	$6.134^{***}(4.66)$
CVA	$2.123^{*}(1.97)$	$2.984^{*}(1.73)$	$3.021^{**}(2.03)$
R^2	0.717	0.708	0.624
F value	606.536^{***}	712.607^{***}	219.230^{***}
Observations	2405	2950	1332

From the significance level and coefficient absolute value, it can be seen that the influence of Mandarin attitude on Mandarin variation in first tier cities is significantly weaker than that in third tier cities. First tier cities have developed economies, overall high levels of Mandarin proficiency among residents, and a large proportion of immigrants. As a result, the level of Mandarin identification itself is relatively high. With the increase of Mandarin identification, there is limited room for the degree of Mandarin variation to decrease. On the contrary, in third tier cities, the marginal effect of Mandarin attitude on suppressing Mandarin variation is significantly greater. The popularity of Mandarin in first tier cities is strong, and local residents have more opportunities to communicate in Mandarin, making Mandarin less influenced by dialects.

Conclusion and Implications

Research Conclusion

Firstly, emotional and value attitudes towards Mandarin have a significant negative impact on Mandarin variation. Secondly, the attitude of local residents towards Mandarin has a more significant negative effect on Mandarin variation. The negative effect of Mandarin attitude on Mandarin variation among respondents in third tier cities has become stronger, while the overall impact of language attitude on Mandarin variation among respondents in first tier cities has significantly weakened.

Policy Implications

We should continue to comprehensively promote Mandarin, which is the foundation for improving the Mandarin proficiency of the whole nation. There should be targeted efforts to strengthen the promotion of

Mandarin, especially among older people, local residents, and people in small cities. We should strengthen the promotion of cultural confidence and the core position of Mandarin, enhance people's consensus and practical understanding of Mandarin as lingua franca; Local cultural and educational departments can establish corresponding teams to regularly visit street communities, rural areas, and other activities, providing Mandarin promotion and education services for the specific groups mentioned above, and providing policy support for improving residents' Mandarin proficiency and quality.

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